

ABSTRACT OF THE DISCLOSURE

The present invention is a method for maximizing water removal from an absorbent web in a press nip. The present invention uses a pressing unit having a blanket with a void volume and with a pressure profile that maximizes water removal in the press section or on the Yankee dryer of a paper machine. The pressure profile of the pressing unit according to the present invention has a very steep pressure drop at and/or following the exit of a pressure distribution curve in order to maximize water removal by minimizing rewet of the web. The improved pressure profile according to the present invention results in increased water removal and/or improved line speed. The void volume further increases water removal and/or improves line speed.